

GAGAUZIAN AND BULGARIAN VERNACULAR HOUSES IN SOUTH Bessarabia: TRACKING THE EVOLUTION OF RURAL BUILDING THROUGH 3D MODELING

Ilie Iulian MITRAN^{1*}, Gabriela LAZAREANU^{2*},

¹University of Bucharest, Romania, Doctoral School of Sociology, 9 Schitu Magureanu Blvd., Sector 1, RO - 050026 Bucharest, Romania

²Alexandru Ioan Cuza University of Iasi, Faculty of Orthodox Theology, 9 Closca St, RO-700066 Iasi, Romania

Abstract

The rural landscape of southern Bessarabia was subjected to significant changes beginning with the early 19th century, the Gagauzian and Bulgarian colonies that were gradually established evolved from a highly scattered and poorly outlined layout to a much more coherent structure that could nurture economic and social development. Through the data that was gathered during the fieldwork that was done in Gagauzian, a territorial unit within South Bessarabia, we have much more of an ease when presenting how homes evolved throughout the eras. All the featured buildings are presented in a chronological order, from the types that are representative for the 1910s-1920s, to the ones that became popular in the 1960s-1970s. Old photos from personal archives and written descriptions of the region made by Russian officials in the early 19th century also constituted a great resource. The study focuses not only on how the homes were upgraded from one decade to another, but also how villages changed in terms of layout, composition and amenities. The presented model shows homes that are still standing today, or depiction of very common housing types. The study concludes that from the 1910s-1920s up to approximately the 1960s. The changes consisted in the popularization of square-plan homes, while in the homes built in the 1920s were refurbished wide porches being added to the wide facades. Decorative plastering and fretwork were also added, thus giving a more ornate appearance to rural homes.

Keyword: Rural; house; Refurbishing; Layout; Colonial

Introduction

The study intends to give an overview regarding the evolution of housing in Budjak (South Bessarabia), stressing the housing types that were frequent in villages that were majority Gagauzian and Bulgarian. M.V. Marunevich was one of the few researchers that closely studied the evolution of housing in the region, concentrating exclusively on the settlements with the Gagauzian majority [1, 2]. Our study aims at giving insight in regard to the relation between the characteristics of the natural environment, such as topography and availability of natural resources to the options that were taken into consideration by builders. Another aspect that is highlighted is how the interaction between the Gagauzians, Bulgarians and the other ethnic communities had a great contribution on the homogenization of vernacular rural architecture within the region. The function and the aesthetics of rural homes are closely analyzed, some of the most noticeable changes when it comes to beauty in the context of the rural house that are, in

* Corresponding author: mitraniulian@europemail.com and gabrielalazareanu@yahoo.com

part, connected to economic and technological development in the region [3-6]. The study relies mostly on 3D models that were created by the author in order to highlight the immense benefits that digital reconstruction through CAD technology can have on the study of rural architecture. The benefits are connected to the fact that many rural homes were subjected to interventions that altered their original form, some of them were left in a state of decay, or some entirely vanished. Through CAD technology, the author digitally reconstructed houses that still exist in the villages of Budjak but were subjected to interventions that altered their original form - thus was made possible to have a clear image of the evolution of housing types in various eras. Without the help of CAD technology, we could, in the best possible circumstances, to accurately represents coherently the last era in which rural homes massively built Mostly due to the fact that there are still many buildings that still survived from that era, on the flip side, for the last decades of the 19th century we have no homes that are still standing. Digital reconstruction made it possible to have a very clear and standardized image of housing types that are representative of various eras, with the possibility of representing the building from all possible angles, which would be impossible if the study would rely on photo archives and ones taken during research trips [7-9].

Brief historical overview

South-East Europe was deeply shaped by the Russo-Turkish Wars, they impacted the region both from an economic and demographic point of view. The era was also marked by notable damages that resulted from battles, many villages being destroyed and valuable artifacts of rural heritage were forever lost [10-13]. The wars and the social and economic state of decay that the Ottoman Empire saw itself in the 18th and 19th century created a certain amount of unrest among its people. The Russian annexation of Bessarabia (Eastern Moldavia) in 1812 allowed the colonization of Southern Bessarabia with Gagauzians and Bulgarians from the Eastern Balkans. Even before 1812, the region was sparsely populated, with groups of Nogai Tatars inhabiting the area. The majority of them left after the region came under Russian control [14].

Colonists mostly settled in three distinct waves, the first was between 1811-1812, the second 1812-1822 and the last between 1829-1830 [15]. Most Gagauzians came from what is today the south-eastern part of the region of Dobrich, which is part of historic Dobrudja, a region that is mostly located today in south-east Romania. The area that is around the city of Varna and the towns of Balchik, Kavarna and Balgarevo historically had the most compact communities of Gagauzians. The Gagauzians are a Turkic-speaking group, speaking a language very close to the Balkan dialect of Turkish, and they are practicing Eastern Orthodox Christianity. The groups of Gagauzians that settled in Southern Bessarabia came in part from the Varna-Balgarevo area, others came from areas that are nowadays in Romania: Mangalia and Mamaia.

A few other groups of Gagauzians settlers came from the central regions of Bulgaria, mostly the area around the city of Yambol. Unlike the ones from Dobrudja, which, the ones that came from central Bulgaria are usually labeled as Turkish-speaking Bulgarians. Other Turkish-speaking Orthodox Christians include the Karamani of western Anatolia, some sources claiming that they are the descendants of Greeks that adopted Turkish as their native language. Both the Gagauzians and the Bulgarians settled the south-west corner of Southern Bessarabia, Komrat will be the unofficial for the Gagauzians, while Bolgrad, nowadays in Ukraine, will have the same role in regard to the Bulgarian ones. The way in which housing evolved for the Bessarabian Gagauzians and Bulgarians by comparison to their counterparts from the Balkans is determined by multiple factors, from ones that had to do with topography and the availability of certain resources, to ones that more connected to the way in which various craftsmanship and aesthetic taste developed locally,

Methodology

There were a few difficulties when it came to fulfilling the objectives that were set at the beginning. They mainly had to do with the fact that the houses that were built during the first two decades of the 20th century are mostly gone, so we had to rely mostly on descriptions, sketches and old photos. Another aspect that generated some difficulties has to do with the fact that there are very few detailed studies and descriptions of rural houses from the region, especially details that describe technical aspects such as the building materials that were used, when certain elements become widely used (e.g., decorative plastering for the exterior) [3-8].

The photo sources that were gathered from the fieldwork along with the antique photos that were provided by some locals, were used extensively to extract information regarding the peculiarities of rural dwellings from each of the three periods that we outlined. The archaic phase is characterized by the presence of below-ground dwellings, the intermediate phase was dominated by two-room dwellings – still being used natural building materials, the modern phase – dwellings have at least three rooms, industrial building materials are more widely used.

The missing information was in regard to the technical details, some information was gathered from the locals, and also through examining similar housing types built in nearby areas which have similar topographic features and available building materials. The study mainly focuses on the architectural elements, elements such as furniture and textiles were not included. Below-ground housing types are not included in this study, even though they were widely spread in the region at one point. Due to their rudimentary layout, it was an easy task to determine how the interior was partitioned.

The homes that were built until the 1970s had a three-room layout, consisting of two living spaces and an intermediary room that acts like a hall. For homes that were built in the 1970s, which had a more complex floor plan, information was taken from Moldovan real estate websites that featured such properties, often floor plans drawing and images with the interiors being provided. The 3D models were made in Sketchup 2017, some textures, especially the ones used for the decorative exterior plastering, were costume made. Due to the fact that rural houses were built on-site, with no use of architectural blueprints, the models were made through the use of approximations — when it came to room sizes and height, roof height and the angles of the slopes, window and doors sizes, and the distance between various elements (e.g., window, doors, porch pillars). The decent amount of good quality photo content that was collected, the models good to be easily constructed by approximating the proportions of the original building and taking into account the buildings standards that were used. Even though these standards were never regulated through legislation [10-13].

The models were in part constructed through the use of groups and groupings that made the duplication of certain elements, while preserving the symmetrical design of the facades. Unlike other CAD software, Sketchup doesn't use primitives but rather models are built by drawing the outlines of the polygonal shapes that form its structure. This technique came in handier when modeling the rural homes of Southern Bessarabia, as there was no actual need for organic modeling, the use of primitives is mostly being preferred when the models have intricate round, cylindrical, curved or highly textured surfaces. The models try to balance out the number of elements and details that were featured through solid modeling, while others are displayed through the use of textures [3-7].

Architectural heritage of rural south Bessarabia. The need for digitalization

Aren't old photos enough? Why do we need 3D models? One might wonder if a well put together collection of historical photos might be enough when it comes to documenting the evolution of rural houses. Photos play a huge role in this process, but at the same time they present a lot of issues: visible signs of decay, bad lighting, unflattering angles. Besides this, we can also

point out the fact that photos that feature the houses usually have them as part of the background, very few photos fully display the buildings. Vegetation, such as trees and plants, usually obstruct from getting a clear view of the facades, besides this quite often various objects and household annexes can also contribute. Another important aspect which makes 3D models even more reliable has to do with the fact that many buildings had their original form altered in recent years, renovations projects were keen on using new building materials and techniques that did not correspond with the one that were originally used. In some cases, addition was added to the houses, some of which were not in tune with the original volumetry, thus compromising their antivectorial value.

Depicting rural houses through 3D models brings numerous advantages, it gives us the possibility of digitally reconstructing a building in its original form, super or semi realistic rendering can be employed, the creation of section views is easier to generate. Unlike drawing the building through traditional techniques or through the use of vector-based drawing software. 3D CAD gives us the possibility of displaying the model in different styles – frontal views of the facades or two-point perspectives can be easily generated, thus giving a detailed outlook on the building. Tridimensional modeling gives us the opportunity of creating complex digital environments [7-9].

The interactive quality of 3D models makes them ideal for making them the main focus of presentations that are made in front of audiences at scientific conferences. Through using various additional software and add-ons can convert models into 3D pdfs or into interactive videos where the each scene is prerecorded and the viewer can easily select which scene are ideal to watch, even if it is preferably that they will be listed in an order that will create a context and not just randomness, The layout of Eny Kongaz and the 3D scenes highlight the chronological evolution of housing, the more archaic houses, built in the first half of the 20th century with some subsequent refurbisings after WWII, are located in the southern half of the village, while the ones that were built in the 1970s and some examples of low-rise apartment buildings made from prefabricated concrete walls.

Environmentally determined aspects in the vernacular rural architecture of Southern Bessarabia

The topography of South Bessarabia and South Dobrudja, the ancestral homeland of the Gagauzians, are different in many aspects. It determined the way housing evolved to a certain extent. South Dobrudja is dominated by *canarale* (ro.) – steep rocky valleys with a flat bottom that are spread across the surface of the Plateau of South Dobrudja. On the other hand, the valleys of South Bessarabia frame the course of the rivers from flow from north to south and discharge in the Danubian lagoons that are near the Romanian-Ukrainian border. The topography of the land poses some challenges to both the house and the household. Southern Bessarabia's south and south-west, as well as the lands near de Dniester lagoon are quite flat, while part of the south-east tends to be hillier. During the 19th century and the first two decades of the 20th century houses in Dobrudja were not elevated above the ground, the elevation of the interiors usually coincided with that of the rooms' floors. Dobrudjan villages were dominated by poorly constructed houses in the late 19th and early 20th century, the households were very rudimentary, many times there were no fences around the property, vegetation was very scarce which did not diminish the unbearable heat during the summer [16].

Descriptions of Tulcea from the late 19th century state that due to the wars that ravaged the region in the 19th century, many of the town's residents were no longer keen on building robust homes, but rather ones that could provide them with shelter for a few years. Those often use very rudimentary construction techniques and materials. The above-ground elevation of rural houses in Dobrudja started to increase during the 1920s, especially in the hillier regions where the building's foundation was continued above ground level, thus elevating the house quite a lot.

As a result, stairs would make access possible to the porch from where the access into the “sală” (ro. hall). In the villages of Central Dobrudja this was less common due to the fact that the terrain is to a certain degree falter, smooth hills dominate the area, a few small creeks flow from the north to the south-east, discharging in the maritime lagoons near the Black Sea coast.

Housing went through dramatic changes from the beginning of the 19th century up to the present day. The buildings that were erected by the colonists upon their arrival were very rudimentary. Huts were a very common sight; more evolved ones were above-ground and were made up of two rooms. The topography of South Dobrudja made it almost impossible for many villages to develop a grid pattern for their network of streets. In South Bessarabia due to the wide river valleys, a more coherent street patter with streets that perpendicularly intersect each other, while in South Dobrudja many streets follow the outline of the hills. It would be almost impossible for the streets to follow a straight path, as they would be almost impossible to use due to the hill’s steep slopes. The vernacular rural house of South Bessarabia is generally categorized as a “plain house”, sharing most of its general characteristics with houses found in the regions of southern Ukraine, southern Russia and southern Romania. The floorplan has a narrow rectangular shape. Rooms are positioned on a straight axis; the two rooms that are positioned on the two ends of the house share a wall with the hall; the hall represents the only room that has direct access to the exterior (Figs 1-7).

The room that is placed on the end that faces the street way can have up to four or five windows. The windows are narrow, two of them will always be positioned on the narrow facade that faces that street, the whole the other two are on the wide facade that faces the yard. The exact number of windows placed on the street facade can vary, street facades with two windows are the most common sight. Even if we tend to think that the number of windows is mostly determined by the wall’s weight. Examples of wide street facades with a single window are also present, as well as street ones that don’t have any windows. The room that is in the back end of the house usually has just two windows. The hall doesn’t have any windows, natural lighting is provided by the glass panels that are in the upper part of the double door. Sometimes this door can have complex decorative wood carving. Gable roofs are one of the most recognizable features of Gagauzian houses; vertical wood planks usually seal the gable’s entire surface.

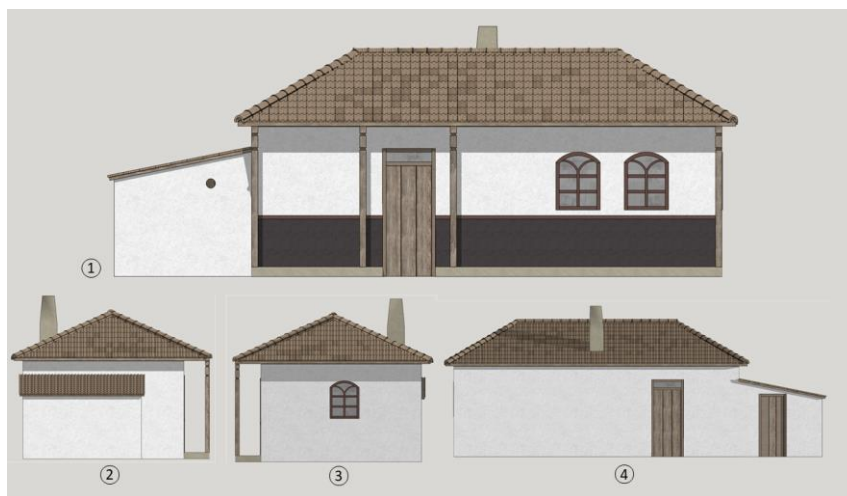


Fig. 1. Archaic house from Baurci. Model done according to the sketches from Гараузоведение В XIX-XX ВВ/Studies regarding the Gagauzians in the 19th and 20th century (Maria Marunovich). Views of the facades: 1) main façade; 2) side façade (I); 3) side façade (II); 4) rear façade



Fig. 2. Archaic house from Baurci. Model done according to the sketches from ГАГАУЗОВЕДЕНИЕ В XIX-XX ВВ. (Maria Marunevich). Axonometric perspective



Fig. 3. Front view of facade of a 1970s style house from Southern Bessarabia. Wide façade

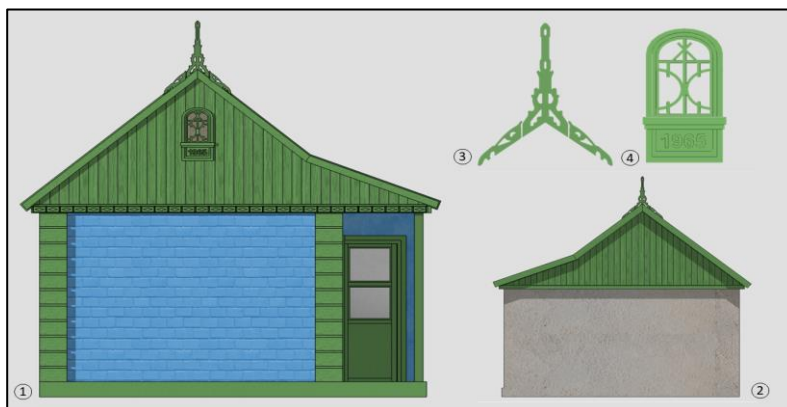


Fig. 4. “Long-house” type from the between war era (1920s-1930s). Narrow facades and details of the fretwork:
1) narrow façade (I) - general view; 2) narrow façade (II) – general view;
3) gable peak “crown”; 4) ventilation window fretwork detail



Fig. 5. "Long-house" type from the between war era (1920s-1930s). Wide façade



Fig. 6. "Long-house" type from the between war era (1920s-1930s). Wide façade: narrow façade (I) – general view; 2) narrow façade (II) – general view; 3) general view of the roof



Fig. 7. "Long-house" type from the between war era (1920s-1930s). Wide façade

While in Southern Bessarabia the plank pattern is quite basic – aligned in a vertical position, in North Dobrudja there are some examples of more complex patterns – planks positioned at a forty-five-degree angle are mirrored in the two halves of the gable. Sometimes decorative fretwork is placed directly on the gable, this is not very common among Gagauzian and Bulgarian homes where the fretwork is mostly concentrated on the tip of the gable eaves, or on the gable’s tip. The fretwork that is positioned along the gable’s eaves is linear and is based on a repetitive pattern, while the „crown” that is on the gable tip has a distinct design. The basic structure of the floor plan is identical in both cases, the most notable differences appear in the way in which the porch is built, different preferences when it comes to color schemes and exterior plastering, and the way in which decorative patterns are used to beautify the building’s exterior. The building materials were usually acquired from the nearby areas, stone was usually extracted from the valleys that were near the village. Stone was mostly used for building the foundation, which would usually go 19 inches below ground level [17].

The foundation sometimes extends a little above ground level, thus forming a pedestal, elevating a house a little, in other cases the foundation doesn’t extend above ground level at all. Various techniques and materials were used for erecting the walls, a variety of adobe bricks called *chirpic* (vernacular building material) were preferred for the masonry. They consisted of a mixture of clay, dung and straw, they were shaped into a rectangle by using a casting mold made up of wood, the brick did not require burning, they were left to dry out in the sun. Walls were also made up of clay monoliths. This technique required that the walls would be cast in three, up to four, distinct steps [17].

A two-week time gap was left between these steps so that the layers of newly cast clay will dry as much as possible. The clay-cast walls were massive, they usually had a weight of about 23 inches. The walls’ corners were reinforced through integrating into the cast clay of perpendicularly woven vine branches; they contributed to increase the walls’ rigidity. Clay bricks were usually cast and placed to dry near the local creeks [18].

Houses built out of stone masonry were quite uncommon, mostly due to the fact that they were quite costly to build. Locally, stone masonry was used for erecting churches, many churches were initially built from wood, being replaced by the permanent stone building at a later date. In the between war period many construction materials were brought by train to Taraclia, they would be picked by the buyers and transported by cart to the construction site. *Saman* was another type of clay brick that was used in South Bessarabia, unlike “*chirpic*” (ro. adobe) its composition consisted of a mixture of clay and straw with additional water. It doesn’t use dung in its composition.

Housing types evolved gradually in Southern Bessarabia from the beginning of the 19th century up to the second half of the 20th century. The most obvious change was the fact that during the 19th century, above and below-ground huts were still a very common sight in this region. A building’s complexity relied to a very large extent on the financial resources that the family had. Among the poor, below-ground huts were still popular up to the very end of the 19th century due to the fact that they were very easy to build with the natural resources that were available in the area. A huge problem that concerned building in this region was the absence of wood, this was mostly due to the fact that Budjak was almost entirely deprived of forested areas, the few forested area that existed were mostly concentrated in the areas that were close to the banks of the Danube. The interior part of the region, which mostly coincided with the areas of Gagauzian and Bulgarian settlement, were lacking the needed amount of wood for construction. Many times, wood would be brought from the Fălcium area, now in Vaslui County (Romania). Even so, wood would be used for the roof’s framing, for the windows and doors. Very rarely wooden tiles would be used for the roof, even though we came across such an example in the works of Cornell Valentin Moshkov. During the fieldwork that he conducted during the 19th century in the present-day territory of Gagauzia, Moshkov came across what seemed to be a typical two-rooms house that had a front porch supported by wooden pillars and the roof was covered with wooden tiles. The

house was situated in the village of Beshalma, nowadays part of Gagauzia's Comrat District [15, 19].

The general features of the house suggested that it was occupied by wealthy peasants, from the building materials that were used, to the painted decorative patterns that were placed on the windows' wooden paneling to the furniture that was available. A striking aspect that sets apart the dwellings of the poor from those that were more financially secure is the color schemes that were used. Poor peasants had both their homes and clothing colored in very neutral shades, from browns to beiges and blacks. A house of a modest Gagauzian family from the 19th century would be almost entirely dominated by natural earthy tones, while the homes of the wealthier peasants were richer in more saturated shades [1, 2]. If we take a look at the evolution of material culture, regardless of group or geographical area, we will always notice that the dwellings and clothing proudly exhibit bold color schemes. This was mostly due to the fact that before industrialization, bold shades were hard to obtain, and often were reserved to those that were part of the more privileged classes. Until the end of the 19th century, and the beginning of the 20th century, painted patterns still retained an apotropaic role, or were meant to display symbols that were passed on from the ancestors. In some Gagauzian homes we could find symbols such as the *Tree of Life*, *Infinity Columns* or various depictions of the sun that were painted on ovens, walls and on window paneling. The evolution of the rural house of Southern Bessarabia had to do in part with integrating additional rooms within its layout, and various changes that had to do with the availability of furniture and textiles.

Due to their small size, archaic homes could not accommodate too many pieces of furniture. When it comes to textile pieces, the 20th century witnessed a great evolution in the variety of textiles that adorned the interiors (Figs. 1 and 2). The evolution was both in terms of the number of textiles that became much more of a common sight, and the embroidery and the weaving styles that became more and more popular. In the 19th century most of the woven textiles displayed geometrical patterns that mostly consisted of vertical lines, triangles, V and diamond-shaped patterns [18].

Also, embroideries that displayed birds, especially roosters were also a common sight, the rooster was a symbol that can be traced to the Gagauzians's ancestral homeland in Dobrudja. In the next phase, embroidered and women's pieces became heavily adorned with floral patterns, usually rendered in a naturalistic fashion. Unlike the archaic patterns, these were more colorful, industrial dyes were already in use, so bright colors such as fuchsia or bright shades of pink were becoming more of a common sight than before. Floral patterns became the main decorative element for pieces such as homemade rugs, drapers, table clothes, pillowcases and drapes. Even so, among Gagauzian women these patterns did not make their way into the festive dress.

There are a few examples of aprons at the village Museum of Kazaklia that display colorful floral embroidery on a white background. But this example tends to be more of an exception rather than the general rule. Embroider aprons can also be seen in the festive dress of the Bessarabian Bulgarians in the southern part of Odessa region in Ukraine, but they are less numerous than the ones that have their design based on plain color or vertical lines. Not all homes in Southern Bessarabia had a rectangular layout, even those that dated back to the 19th century. There are several examples of rich peasant's homes that were built at the end of the 19th century and withstood in the first few decades of the 20th century display a plan that is not narrow and long. In the works of Maria Marunevich [1, 2], we come across an example of a house that used to belong to wealthy peasants that has a rather compact layout and features a wooden porch that extends on two sides of the building. Thus, entirely dominating the façade that faces the street and extends a quarter of the total length of the side façade. The segment of the porch that dominates the street façade is elevated above ground by a row of pillars made from masonry, The pillars both support the wooden structure of the porch, the porch supports the roof through some wooden pillars. The side of the porch that faces the street has a railing which incorporates thin

balusters that are made up of wood, the railing from the side porch is closed by wide planks of wood.

A huge difference between the housing types that were still in use during the early 19th century and the first half of the 20th century has to do with the way in which the house and the annex were linked to each other. The Balkan-style household was much more heterogeneous when it came to the way in which annexes were grouped, it was harder to point out a very specific pattern. The contact that the Trans-Danubian colonists had with the Germans that settled the area next to present-day Gagauzia, historically referred to as the “Warsaw Colonies” [18], resulted in some architectural features that were indigenous to German homes being transferred to the ones of the Gagauzians and Bulgarians [1, 2].

Some of the more noticeable aspects are the gabled roof and the “long house” layout (Figs. 4 and 5). The gabled roof is not only seen in the rural homes from Budjak, but also noticeable in Tulcea County (Romania), where it is a staple of the vernacular homes of Old Russian Believers. This roofing style can be seen in two distinct forms in Budjak: the gables have a wall made up of wooden planks positioned in a vertical pattern; the gable’s wall is made out of masonry. The “long house” (ro. *casa lungă*) is a specific type of layout that is spread in Budjak and Northern Dobrudja. This layout is mostly characterized by the fact that both the living quarters, sheets and stables are part of the same structure, meaning that everything is built as one homogenous structure [19-22]. The roof has the same height and pitch from one end to the other [14]. There are several advantages that come with this layout, one of them is linked to the fact that it saves a lot of space, to a certain degree is more economical, and we can also argue that it is more aesthetically pleasing. When it comes to being more economical, building several free-standing buildings for the sheets and the stables is less cost-efficient due to the fact that each of these structures will have four walls, and subsequently more wood in order to build the gable’s walls on both ends. Another layout version, that follows pretty much the same principles, can be seen in some villages from Tulcea County (Romania), where the annexes are attached to the house, but they have a different roof [18]. This mostly means that their roofs have a different height than that of the main building. What is regularly noticed is the fact that the living quarters have windows that are usually tall and narrow while the stables and sheets have very tiny windows, or in some instances we are talking about ventilation holes. Households that have similar structures were noticed even in the village of Cobadin Constanța County (Romania) [20].

Additionally, to what we regularly see in Southern Bessarabia, we also see the presence of a *șopron* – a room with only three walls which is opened to the exterior, it was usually used to store those household items that were regularly used by the peasants. The town of present-day Gagauzia were subject to systematization during the Soviet era, some archaic houses buildings that resembled to certain degree those from the Balkans were replaced with ones that were constructed according to the directives set by the officials

Aesthetics, color schemes and decorative elements

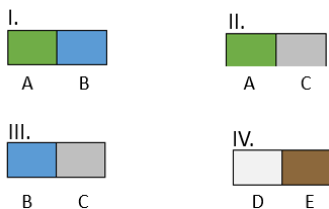
There are several aesthetic traits that are peculiar to vernacular rural homes in Southern Bessarabia. The manner in which homes were decorated was in direct correspondence with the way in which they were positioned on the property, and most important, which sides were more visible from the road. Most homes have a long and narrow silhouette, the two narrow facades that are placed on the house’s two ends, one of which faces the road. Peasants usually had a very balanced approach when it came to producing goods or building various structures; a principle that was strictly followed was that of generating minimal waste and making the most out of the limited sources that they had. The narrow facades that face that road constitute that depicted geometrical the main area where the ornamentation is mostly concentrated, while the other facades, especially the wide one that faces the interior yard, don’t have any type of ornament.

This is mostly due to the fact that the porch obstructs much of the view, ornamentation should be ideally placed on walls that received a good amount of sunlight. Usually, the street façade faces the east, while the wide façade that hosts the main entrance faces the south, while the rear one faces the north. The narrow façade is made up of two distinct sections that try to create a balance to each other through decorative patterns that they exhibit. The lower half is made up of a masonry wall, the upper half is made up by the gable wall which is closed by a vertical row of wooden planks. The masonry wall is usually split in three quarters, two of them are narrow and border the wall's side edges. The overall look of this façade resembles that of an ancient Greek temple, from the shape of the gable and the pitch of the roof to the way in which the faux columns are positioned. Classical elements are often used to emphasize a building's main entrance, often using columns and gables that reenact the style of ancient Greek temples.

The vernacular rural homes of Southern Bessarabia use these elements to emphasize the narrow facade that faces the street; all the homes that were built during the 1920 and the 1930s preserve this pattern. We need to keep in mind that during the 20th century, folk art and rural craftsmanship were shaped by the trends that were present in the urban area. Also, beginning with the second half of the 20th century, peasants' material culture was much more subjected to changes that were a direct consequence of industrialization, policies that were meant to systematize rural settlements and the effects of state-controlled culture. Stylization is the process through which an element is subjected to various modifications that are meant to make it easier to integrate in a new context, often quite different from the one in which the element was originally used. Besides the new context in which they are used, often the techniques that are used for making them are not the same as the original ones.

The use of stylized elements is motivated by a variety of factors and contexts, through this process decorative elements are usually simplified, and in rarer cases additional details are added. In some cases, the colors scheme can be subjected to changes, or the original colors can be preserved but their saturation and tint is altered (Fig. 8). The most important aspect that needs to be addressed is that most of these elements did not organically form in the context in which they were placed. Unlike revival styles which are keen on replicating historical architecture as well as possible in a new context.

Two color schemes



A		Shamrock	#7FB565
B		Blue de France	#93D6E6
C		Grey (mortar)	#E3E7E5
D		White	#FBFEFC
E		Brown (natural wood)	#8B6B2F
F		Jade (green)	#1FB060
G		Mustard (yellow)	#F8EB97
H		Bordo (red)	#BF2022

Multiple color schemes

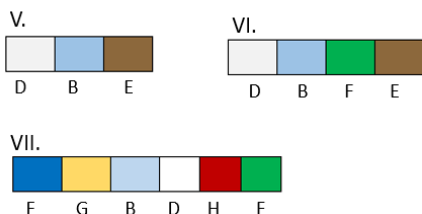


Fig. 8. Colors schemes used for the exterior

Stylization techniques can come in handy when only particular elements from a style are used, or from several, in order to render the elements in such a manner so that a homogenous look is obtained. The rural homes from Southern Bessarabia usually rely on the following types of ornaments:

- decorative plastering that mimics brick or stone masonry;
- decorative frames for the windows and doors;
- stucco;
- cornices;
- fretwork.
- carved decorative patterns on the entrance door. Not all of these elements are necessarily used, many designs rely mostly only on a few. Color schemes also play a very important role, as the shades can accentuate various areas from the facade. The most frequent color schemes are:
 - blue is frequently used for the woodwork for the doors and windows;
 - the gable's wood wall is usually left unpainted;
 - if there was no paint applied over the plastering that consisted of cement-based mortar;
 - the gable and the whole woodwork will more likely be painted in a bold shade (e.g. green, blue);
 - shades of green and blue are preferred for the wall of the street-facing facade, when paint is not applied the plastering that is applied to the wall can be colored in dark shades of gray;
 - sometimes the plastering can have a porous texture;

The various shapes that are created through the use of fretwork are mostly inspired by elements from the local folklore, mainly characters or objects that are found in fairy tales and folk songs. During the 1950 and 1960 both in the Moldovan USSR and Romania we witnessed a *folk revival* within rural architecture, this was in part manifested through integrating *folk motifs* – geometrical patterns inspired by traditional embroidery or by mythical creatures and objects, into the design of newly built homes, or when it came to refurbishing the already existing ones.

In Romania this newly regained interest for folk motives manifested differently from one region to the other. Some of the homes that were built in late Neo Romanian style were refurbished at one point with exterior mosaics that depicted geometrical patterns that were usually seen in folk embroidery and weaving. This was most commonly seen in Transylvania; in other places this trend usually manifested through the use of folk-inspired patterns that were mostly integrated into the exterior plastering. In Southern Bessarabia these usually folk-inspired motifs took the form of fretwork and decorative exterior plastering, even so many of the geometrical patterns that more linked to architectural classicism. The fretwork is entirely placed on the roof, most of them being placed along the gable's eaves. The gable's upper quarter is highlighted by the fretwork that is positioned on the edge of both slopes. There are several decorative folk motifs that are frequently used: the serpent "the house snake" (ro. *șarpele de casă*), the arrow, the tree of life, the roosters etc. Some fretwork elements are highly stylized which makes it hard to exactly point out what folk motif they make reference to. Rural houses from the counties of Tulcea and Brăila also rely on fretwork, but some preferred motifs differ.

It is more common to see gables that are adorned with decorative elements made from fretwork, some frequently used motifs include the tree of life, rendered in various styles, various birds as well as simpler geometrical compositions. In Brăila County the fretwork is mostly concentrated around the eaves, this is due to the fact that many houses have a square floor plan and are topped by roofs with at least four slopes. Complex examples of fretwork are usually noticeable in Vaslui, Galati, Braila and Tulcea counties.

Conclusions

The rural house and household of Southern Bessarabia went through various changes from the beginning of the 19th century up to the second half of the 20th century. Some of these changes were the result of adapting to a new environment, while others were the result of building innovations that were adapted through contact with the other communities from the region.

The homes of Trans-Danubian colonists (Gagauzians, Bulgarians) mainly consisted of below-ground huts in the first half of the 19th century, more complex housing units consisted of above-ground two-room houses. Many of them displayed roofs with four slopes and a porch that stretched the entire length of the wide facade where the main entrance was. The „long-house” was an innovative layout which made possible to integrate both the living quarters and annexes into a single building, thus being more efficient when it came to space usage and economical when it comes to the amount of building materials needed.

Southern Bessarabia homes usually vary between „square-shaped houses” and „bar-shaped houses”. Perfectly square-shaped layouts became widely spread during the latter part of the Soviet era and were the product of state intervention in the development of rural architecture. During the 19th century and early 20th century, houses that exhibited elements of Balkan/Mediterranean architecture were still present in some settlements, some even surviving up to the 1970s.

Archaic dwellings did not display very little decorative patterns, usually some of the ones that did were usually the homes of wealthier peasants. The colors schemes that were popular relied on neutral and natural tones (browns, reds, greens, mustard, blue). The colors scheme that became popular in the 60s and 70s put more emphasis on saturated tones and the contrast between them,

During the 1960s and 1970s many homes were refurbished on the exterior, this was the period in which decorative plastering and fretwork was added, also new color schemes were added that did not shy away from bold combinations.

Homes that were built in the 1970s did not have any opened intermediary space between the inside and outside, porches were no longer built. Windows increased in size, by comparison to the previous phase, in which they were rather narrow and tall.

There are no significant differences in housing style indigenous to South Bessarabia based on ethnic affiliation.

Certain small variations can be noted from village to village, but they are mostly the result of personal preference, local trends and the fact that many buildings were erected by the same builders within the same decades.

The vernacular rural architecture of the Bessarabian Gagauzians and Bulgarians developed in a very particular way, being distinct from that of their counterparts from the Balkans,

The layout of houses from this region is not very distinct from that of the generic rural house from the plain regions of Romania,

Homes that were built from the 1990s onwards do not display any decorative elements, no references to folk designs in general, being keen on a simple design and the wide use of industrial building materials.

References

- [1] M.V. Marunevich, **Gagauz koraflları**, Center for Scientific Research, 2015, pp. 5-7.
- [2] M.V. Marunevich, **Gagauzians, Catalogue of the Kunstkamera Collections**, Center for Scientific Research, 2020, pp. 46-49.
- [3] F. Stănescu, A. Gheorghiu, P. Stahl, P. Petrescu, **Arhitectura Populară Românească. Dobrogea**, Intreprinderea Poligrafică București, 1956, p. 56.

- [4] V. Luca, O. Corbu, I. Sandu, I. Bucur, *Rimetea, an Example of a Traditional Village from Romania*, **International Journal of Conservation Science**, **10**(4), 2019, pp. 689-700.
- [5] G. Lazareanu, *Tzigara-Samurcas and His Contribution to the Preservation of Popular Objects and as a Museographer and Ethnographer*, **International Journal of Conservation Science**, **13**(2), 2022, pp. 629-636.
- [6] G. Lazareanu, *Contributions of the Scientist Dimitrie Gusti to the Development of the Village Museum*, **International Journal of Conservation Science**, **12**(1), 2021, pp. 143-154.
- [7] C. Klimaszewski, G.E. Bader, J.M. Nyce, *Studying up (and down) the cultural heritage preservation agenda: Observations from Romania*, **European Journal of Cultural Studies**, **15**(4), 2012, pp. 479-495.
- [8] A.V. Tache, I.C.A. Sandu, O.C. Popescu, A.I. Petrisor, *UAV Solutions for the Protection and Management of Cultural Heritage. Case Study: Halmyris Archaeological Site*, **International Journal of Conservation Science**, **9**(4), 2018, pp. 795-804.
- [9] V. Urban, C. Huminiuc, *The Characteristics of the Culture in the Romanian Organizations*, **Quality Management in Higher Education**, Vol 2 (Editor: C. Rusu), Proceedings Paper, Conference, 6th International Seminar on the Quality Management in Higher Education, Tulcea, 2010, pp. 299-302.
- [10] P. Spiridon, I. Sandu, *Conservation of cultural heritage: from participation to collaboration*, **ENCATC Journal of Cultural Management and Policy**, **5**(1), 2015, pp. 43-52.
- [11] P. Spiridon, I. Sandu, *Museums in the Life of the Public*, **International Journal of Conservation Science**, **7**(1), 2016, pp. 87-92.
- [12] O. Florescu, I.C.A. Sandu, P. Spiridon-Ursu, I. Sandu, *Integrative Participatory Conservation of Museum Artefacts. Theoretical and Practical Aspects*, **International Journal of Conservation Science**, **11**(1), 2020, pp. 109-116.
- [13] I.C.A. Sandu, P. Spiridon, I. Sandu, *Current Studies and Approaches in the Field of Cultural Heritage Conservation Science. Harmonising The Terminology In An Interdisciplinary Context*, **International Journal of Conservation Science**, **7**(3), 2016, pp. 591-606.
- [14] I. Duminičă, *Monografiile comunelor plasei Comrat, județul Tighina din 1943*, **Revista de Etnologie și Culturologie**, **20**, 2016, p. 328.
- [15] I. Duminičă, *Coloniile bulgarilor din Basarabia (1774-1856)*. Prim Lexon. 2017.
- [16] * * *, *Atlasul UAT Găgăuzia*. Proart. 2014. pp. 3-5.
- [17] E. Bancova, M. Miron, N. Cervencov, I. Duminičă, A. Covalov, *Cultura materială a bulgarilor. Patrimoniul cultural național ca resursă pentru o dezvoltare durabilă a Republicii Moldova*. **Revista de Etnologie și Culturologie**, **17**, 2019, pp.226-229.
- [18] * * *, *German colonies in Odessa and Bessarabia.*, Retrieved from Black Sea Germans Project. 2021. <https://www.blackseagr.org/>.
- [19] M. Miron, *Casa tradițională a bulgarilor din Republica Moldova ca parte a patrimoniului cultural*, **PhD Thesis**, Universitatea de Stat din Chisinau, R. Moldova, 2019. p. 10.
- [20] M. Miron, V. Miron, *Case tradiționale din sudul Republicii Moldova – modalități de protejare și valorificare economică*, **Conferință științifică internațională**, Chișinău, 22-23 septembrie 2020, ediția a II-a, 2020, pp. 343-350.
- [21] M. Miron, D. Nicoglo, *Patrimoniul și patrimonializare: experiența țărilor europene și Republicii Moldova*, **Akademios** (Chișinău), **53**(2), 2019, pp. 154-160. <https://doi.org/10.5281/zenodo.3364377>.
- [22] M. Ursu, *Particularitățile creării muzeului satului în Republica Moldova*, **Akademios**, **9**(1-2), 2008, pp. 97-103.

Received: June 16, 2021

Accepted: September 12, 2022